

Claims

1. A preventive method comprising the steps of:

a) identifying a patient whose intestinal tract is colonized with Gram-positive bacteria, but who does not have a bacteremia caused by said bacteria; and

b) orally administering to said patient one or more antibiotics selected from the group consisting of: teicoplanin, daptomycin, oritavancin, dalbavancin, everninomycin, virginiamycin, quinupristin, dalfopristin, linezolid, tigecycline, pristinamycin, nisin, moenomycin, gemifloxacin, tunicamycin, cinnamycin, laspartomycin, novobiocin, ciprofloxacin, moxifloxacin, chloramphenicol, nitrofurantoin, cyclo-(Leu-Pro), fosfomycin, telithromycin, azithromycin, magainin, iseganan, BMS-284,756, L-749,345, ER-35,786, S-4661, L-786,392, MC-02479, Pep5, RP 59500, and TD-6424 in an amount and for a duration sufficient to substantially decolonize the intestinal tract of said patient of said bacteria.

2. A preventive method comprising the steps of:

a) identifying a patient whose intestinal tract is colonized with Gram-positive bacteria, but who does not have a bacteremia caused by said bacteria; and

b) orally administering to said patient one or more antibiotics selected from the group consisting of bacteriocins, type A lantibiotics, type B lantibiotics, liposidomycins, mureidomycins, alanoylcholines, quinolines, everninomycins, glycylicyclines, carbapenems, cephalosporins, streptogramins, oxazolidonones, tetracyclines, cyclothialidines, bioxalomycins, cationic peptides, and protegrins in an amount and for a duration sufficient to substantially decolonize the intestinal tract of said patient of said bacteria.

3. The method of claim 1 or 2, said method further comprising culturing said bacteria from a stool sample or rectal swab obtained from said patient.

4. The method of claim 1 or 2, said method further comprising nucleic acid analysis of said bacteria.

5. A preventive method comprising the step of orally administering to a patient one or more antibiotics selected from the group consisting of teicoplanin, daptomycin, oritavancin, dalbavancin, everninomycin, virginiamycin, quinupristin, dalbopristin, linezolid, tigecycline, pristinamycin, nisin, moenomycin, gemifloxacin, tunicamycin, cinnamycin, laspartomycin, novobiocin, ciprofloxacin, moxifloxacin, chloramphenicol, nitrofurantoin, cyclo-(Leu-Pro), fosfomycin, telithromycin, azithromycin, magainin, iseganan, BMS-284,756, L-749,345, ER-35,786, S-4661, L-786,392, MC-02479, Pep5, RP 59500, and TD-6424 in an amount and for a duration sufficient to substantially decolonize the intestinal tract of said patient of Gram-positive bacteria, wherein substantially all of said antibiotic is non-absorbable or partially non-absorbable, and retains antibacterial activity in the lumen of said intestinal tract.

6. The method of any of claims 1, 2, or 5, wherein said antibiotic is formulated such that substantially all of said antibiotic is non-absorbable or partially non-absorbable, and retains antibacterial activity in the lumen of the intestinal tract of said patient.

7. The method of any of claims 1, 2, or 5, wherein said bacteria are antibiotic-resistant.

8. The method of claim 7, wherein said antibiotic-resistant Gram-positive bacteria comprise bacteria of the genus *Enterococcus*.

9. The method of claim 8, wherein said bacteria are *E. faecium*, *E. faecalis*, *E.*

raffinosis, E. avium, E. hirae, E. gallinarum, E. casseliflavus, E. durans, E. malodoratus, E. mundtii, E. solitarius, or E. pseudoavium.

10. The method of claim 9, wherein said bacteria is resistant to one or more antibiotics selected from the group consisting of vancomycin, teicoplanin, daptomycin, oritavancin, dalbavancin, everninomycin, quinupristin/dalfopristin, linezolid, and tigecycline.

11. The method of claim 9, wherein said bacteria is resistant to one or more antibiotics selected from the group consisting of glycopeptides, everninomycins, streptogramins, lipopeptides, oxazolidonones, bacteriocins, type A lantibiotics, type B lantibiotics, liposidomycins, mureidomycins, and alanoylcholines.

12. The method of claim 7, wherein said antibiotic-resistant Gram-positive bacteria comprise bacteria of the genus *Staphylococcus*.

13. The method of claim 12, wherein said bacteria is *S. aureus, S. epidermidis, S. hominis, S. saprophyticus, S. hemolyticus, S. capitis, S. auricularis, S. lugdenis, S. warneri, S. saccharolyticus, S. caprae, S. pasteurii, S. schleiferi, S. xylosus, S. cohnii, or S. simulans.*

14. The method of claim 13, wherein said bacteria is resistant to one or more antibiotics selected from the group consisting of methicillin, teicoplanin, daptomycin, oritavancin, dalbavancin, everninomycin, quinupristin/dalfopristin, linezolid, and tigecycline.

15. The method of claim 13, wherein said bacteria is resistant to one or more

antibiotics selected from the group consisting of glycopeptides, everninomycins, streptogramins, lipopeptides, oxazolidonones, bacteriocins, type A lantibiotics, type B lantibiotics, liposidomycins, mureidomycins, and alanoylcholines.

16. The method of claim 7, wherein said antibiotic-resistant Gram-positive bacteria comprise bacteria of the genus *Streptococcus*.

17. The method of claim 16, wherein said bacteria is *S. pyogenes*, *S. agalactiae*, *S. pneumoniae*, *S. bovis*, or *S. viridans*.

18. The method of claim 17, wherein said bacteria is resistant to one or more antibiotics selected from the group consisting of penicillin, teicoplanin, daptomycin, oritavancin, dalbavancin, everninomycin, quinupristin/dalfopristin, linezolid, and tigecycline.

19. The method of claim 17, wherein said bacteria is resistant to one or more antibiotics selected from the group consisting of glycopeptides, everninomycins, streptogramins, lipopeptides, oxazolidonones, bacteriocins, type A lantibiotics, type B lantibiotics, liposidomycins, mureidomycins, β -lactam antibiotics, and alanoylcholines,

20. The method of any of claims 1, 2, or 5, wherein said patient is neutropenic.

21. The method of any of claims 1, 2, or 5, wherein said patient is within 14 days of receiving chemotherapy or radiation therapy in preparation for autologous or allogeneic hematopoietic stem cell transplant, bone marrow transplant or solid organ transplant.

22. The method of any of claims 1, 2, or 5, wherein said patient is within 14 days of receiving antineoplastic radiation or chemotherapy.

23. The method of any of claims 1, 2, or 5, wherein said patient has or is at risk for enteritis, colitis, or mucositis of the intestinal tract.

24. The method of any of claims 1, 2, or 5, wherein said patient is diagnosed as having a human immunodeficiency virus (HIV) infection, or has acquired immunodeficiency syndrome (AIDS).

25. The method of any of claims 1, 2, or 5, wherein said patient is diagnosed as having chronic renal insufficiency.

26. A preventive method comprising the steps of:

a) identifying a patient whose intestinal tract is colonized with Gram-negative bacteria, but who does not have a bacteremia caused by said bacteria; and

b) orally administering to said patient one or more antibiotics selected from the group consisting of: teicoplanin, daptomycin, oritavancin, dalbavancin, everninomycin, virginiamycin, quinupristin, dalbopristin, linezolid, tigecycline, pristinamycin, nisin, moenomycin, gemifloxacin, tunicamycin, cinnamycin, laspartomycin, novobiocin, ciprofloxacin, moxifloxacin, chloramphenicol, nitrofurantoin, cyclo-(Leu-Pro), fosfomycin, telithromycin, azithromycin, magainin, iseganan, BMS-284,756, L-749,345, ER-35,786, S-4661, L-786,392, MC-02479, Pep5, RP 59500, and TD-6424 in an amount and for a duration sufficient to substantially decolonize the intestinal tract of said patient of said bacteria.

27. The methods of claim 26, wherein said bacteria is selected from the group consisting of *S. typhimurium*, *S. enteritidis*, *S. newport*, *S. anatum*, *S. typhi*, *S. paratyphi*, *S. schottmuelleri*, *S. hirscheidii*, *S. dysenteriae*, *S. flexneri*, *S. boydii*, *S. sonnei*, *Y. enterocolitica*, *Y. pestis*, *P. mirabilis*, *P. vulgaris*, *Klebsiella pneumoniae*, *Vibrio cholerae*, and *Campylobacter jejuni*.

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